



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,717	11/17/2003	Jennifer Telfer	2572-PAT	4962

30084 7590 06/23/2005

DONN K. HARMS
PATENT & TRADEMARK LAW CENTER
SUITE 100
12702 VIA CORTINA
DEL MAR, CA 92014

EXAMINER

SAWHNEY, HARGOBIND S

ART UNIT PAPER NUMBER

2875

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,717

Applicant(s)

TELFER ET AL.

Examiner

Hargobind S. Sawhney

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 14-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/17/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 3, 5, 7, 9, 11, 14-21 and 25 are objected to because of the following informalities:

Claim 3, lines 5 and 6, "a plurality of electrical connects communicating electrically connected to the power cord" is confusing, and needs to be rephrased;

Claim 9, line 7, "said LED" lacks antecedent basis. The limitation needs to be rephrased as –said electric means—for direct reference to the limitation recited in line 10 of the base Claim 8. As claim 11 has similar deficiency, it is also objected.

Claim 14, lines 6-8, "Said third wire communicating in a series electrical connection with said third wire" is confusing, and needs rephrasing. As claims 15-17 also include similar deficiencies, these claims are also objected.

Claims 18, 19 (each), line 4, "led" needs rephrasing as –LED –. Appropriate correction is required.

Claims 5 and 7 are necessarily objected because of their dependency on the base objected Claim 3.

Claims 11, 15, 19 and 25 are necessarily objected because of their dependency on the base objected Claim 9.

Claim 18 is necessarily objected because of their dependency on the base objected Claim 14.

Claim 19 is necessarily objected because of their dependency on the base objected Claim 15.

Claim 20 is necessarily objected because of their dependency on the base objected Claim 16.

Claim 21 is necessarily objected because of their dependency on the base objected Claim 17.

Claim 3 of the instant application has been examined considering the limitation "a plurality of electrical connects electrically connected to the power cord" as -- a plurality of electrical connects communicating electrically to the power cord --.

Claims 9 and 10 of the instant application have been examined considering the limitation "said LED" as --said electric means --.

Each of claims 14-17 of the instant application has been examined considering the limitation " said third wire communicating with a plurality of electrical contacts adapted to engage said LED in a series electrical connection with the third wire" as -- a plurality of electrical contacts adapted to engage said LED in a series electrical connection with the third wire --.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Huang (US Patent No.: 6,299,332 B1).

Regarding 1, Huang ('332 B1) discloses a decorative string light (Figure 9) comprising:

- a power cord 21 (Figure 1, column 2, lines 26 and 27) engageable to an AC power source (not shown);
- at least one socket assembly 1 – the combination including a light bulb 2 received in a light bulb socket and a cover element 1- (Figure 9, column 2, lines 21 and 22);
- the socket assembly 2 having a top wall, a bottom wall, a center cavity, and sidewalls (Figure 9);
- the center cavity receiving an electric means – bulb 2 – for light emission (Figure 9, column 2, lines 21, 25 and 26);
- means – the light bulb socket - communicating the electric power from electric cord 21 to the electric means – light bulb (Figure 9);
- a transparent material – socket cover 1 (Figure 9) – diffusing and transmitting light from the light bulb (Figure 1, column 2, lines 21-26); and
- the light emitted by the light bulb 2 transmitted through the top, bottom and sidewalls of the socket cover 1 (Figure 9, column 2, line 21-26).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US Patent No.: 6,299,332 B1) in view of Liu (US Patent No.: 6,471,562 B1) and Lanzisera (US Patent No.: 5,495,147).

Regarding claim 2, Huang ('332 B1) discloses a decorative string light (Figure 9) comprising an incandescent bulb as the light source. However, Huang('332 B1) does not specifically teach the decorative string light including at least one light emitting diode (LED) as the light source for the device.

On the other hand, Liu ('562 B1) discloses an LED decorative light bulb 10 installable in the base of a conventional base 20 fitted in a conventional incandescent bulb holder (Figure 1, Abstract).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the string light of Huang ('332 B10 by providing the LED light bulbs and their positioning as taught by Liu ('562 B1) for benefits and advantages of long operating life, compactness and high energy efficiency of the light source.

In addition, regarding Claim 2, Liu ('562 B1) further discloses a pair of wires 120 and 140 communicating between the power cord 940 and the LED 10 (Liu, Figures 1 and 5, column 3, lines 50-54).

Further, regarding Claim 2, neither combined nor individual teaching of Huang('332 B1) and Liu ('562 B1) specifically discloses a circuit means limiting electric power energizing the at least one LED.

On the other hand, Lanzisera ('147) discloses an LED light string system (Figure 2) comprising a regulated power supply 15 limiting total electrical power between minimum and maximum power levels (Figures 1 and 2, column 4, lines 20-32).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the string light of Huang ('332 B1) in view of Liu ('562 B1) by providing the regulated power supplying means as taught by Lanzisera ('147) for benefits and advantages supplying constant current and voltage for efficient operation of the LEDs.

Regarding Claim 3, Huang ('332 B1) in view of Liu ('562 B1) and Lanzisera ('147) discloses the decorative string light (Huang, Figure 9) further comprising:

- the top wall of the socket assembly 2 being removably engaged being removably engaged (Huang, Figure 9, column 2, lines 50-52);
- a plurality of electrical contacts 940 (Liu, Figures 1 and 5, column 1, lines 20-22);

- each of the pair of wires 120 and 140 communicating between the one of the electrical contacts and the LED 10 (Liu, Figure 2, column 3, lines 50-54);
 - the LED 10 (Liu, Figure 2, column 3, line 47) mounted in the center cavity, and being removable with detachment of the cavity wall (Huang, Figure 9);
- Note: the limitations “engaged in an inverted position” and “ top wall” each is based on the orientation of the device, therefore they do not carry patentable weights.

Regarding claims 4 and 5, Huang ('332 B1) in view of Liu ('562 B1) and Lanzisera ('147) discloses the decorative string light (Huang, Figure 9) further comprising:

- the casing 1 attached to the socket assembly (Huang, Figures 1 and 9);
- the casing formed of a substantially transparent material allowing transmission of light from the LED (Huang, Figures 1 and 9, column 2, lines 57 and 58);

Regarding claims 6 and 7, Huang ('332 B1) in view of Liu ('562 B1) and Lanzisera ('147) discloses the decorative string light (Huang, Figure 9) further comprising:

- the casing 1 including an upper section removably engaged with a lower section (Huang, Figures 1, 7 and 9, column 2, lines 47-49);

Art Unit: 2875

- light diffusion means – casing wall with shell-shaped contours – formed in the casing wall (Huang, Figures 1, 4, 7 and 9, column 2, lines 57 and 58);

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US Patent No.: 6,299,332 B1) in view of Gibboney (US Patent No.: 6,869,313 B2).

Regarding 8, Huang ('332 B1) discloses a decorative string light (Figure 9) comprising:

- a power cord 21 engageable to an AC power source (not shown); and the power cord 21 having a first and a second wire (Figure 1, column 2, lines 26 and 27).
- at least one socket assembly 1 – the combination including a light bulb 2 received in a light bulb socket and a cover element 1- (Figure 9, column 2, lines 21 and 22);
- the socket assembly 2 having a top wall, a bottom wall, a center cavity, and sidewalls (Figure 9);
- the center cavity receiving an electric means – bulb 2 – for light emission (Figure 9, column 2, lines 21, 25 and 26);
- means – the light bulb socket - communicating the electric power from electric cord 21 to the electric means – light bulb (Figure 9);
- a transparent material – socket cover 1 (Figure 9) – diffusing and transmitting light from the light bulb (Figure 1, column 2, lines 21-26); and

- the light emitted by the light bulb 2 transmitted through the top, bottom and sidewalls of the socket cover 1 (Figure 9, column 2, line 21-26).

Huang ('332 B1) discloses a decorative string light (Figure 9) comprising a power cord with only two wires. However, Huang ('332 B1) does not teach a power cord including a first wire, a second wire and a third wire as claimed by the applicant.

On the other hand, Gibboney ('313 B2) discloses a string light (Figure 12) comprising:

- a power cord including a first wire 198, a second wire 200, and a third wire 202 (Figure 12, column 5, lines 7-12). The third wire 202 attached to a socket assembly 208 (Figure 12, column 5, lines 7-14); and
- means 130, including a power board 210, communicating electric power from the third wire 202 in series - to the electric means 208 (Figure 12, column 5, lines 7-14).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the string light of Huang ('332 B1) by providing a power cord including three wires as taught by Gibboney ('313 B2) for benefits and advantages of providing desired control and protection to the load through a third wire.

7. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US Patent No.: 6,299,332 B1) in view of Gibboney (US Patent No.: 6,869,313 B2) as applied to Claim 8 above, and further in view of Lanzisera (US Patent No.: 5,495,147).

Regarding Claim 9, Huang ('332 B1) in view of Gibboney ('313 B2) discloses the decorative string light (Huang, Figure 9) further comprising:

- the casing 1 attached to the socket assembly (Huang, Figures 1 and 9);
and the casing formed of a substantially transparent material (Huang, Figures 1 and 9, column 2, lines 57 and 58);
- the wall of the casing 1 diffusing – shell shaped wall (Figure 6) - light transmitted from the light source 2 (Huang, Figures 1, 6 and 9);
- means 130, including a power board 210, communicating electric power from the third wire 202 in series - to the electric means 208 (Gibboney, Figure 12, column 5, lines 7-14).

Huang ('332 B1) discloses a decorative string light (Figure 9) comprising an incandescent bulb as the light source. However, neither combined nor individual teaching of Huang ('332 B1) and Gibboney ('313 B2) specifically teaches the decorative string light including at least one light emitting diode (LED) as the light source for the device.

On the other hand, Lanzisera ('147) discloses an LED light string system 13 comprising a plurality of LEDs 25 as the light source (Figures 1 and 2, column 4, line 34 and 35) electrically coupled with a regulated power supply.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the string light of Huang ('332 B1) in view of Gibboney ('313 B2) by providing the LED light bulb as taught by and their positioning as taught by Lanzisera

('147) for benefits and advantages of long operating life, compactness and high energy efficiency of the light source.

Regarding Claim 10, dependent on Claim 8, Huang ('332 B1) in view of Gibboney ('313 B2) and Lanzisera ('147) discloses the decorative string light further including:

- a regulated power supply 15 limiting total electrical power between minimum and maximum power levels (Lanzisera, Figures 1 and 2, column 4, lines 20-32).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the string light of Huang ('332 B1) in view of Gibboney ('313 B2) by providing the regulated power supplying means as taught by Lanzisera ('147) for benefits and advantages supplying constant current and voltage for efficient operation of the LEDs.

Regarding Claim 11, Huang ('332 B1) in view of Gibboney ('313 B2) and Lanzisera ('147) discloses the decorative string light meeting the limitations in similar manner as that applied for the rejections of claims 9 and 10.

Regarding Claim 12, Huang ('332 B1) in view of Gibboney ('313 B2) and Lanzisera ('147) discloses a decorative string light (Huang, Figure 9) including a plurality of LEDs 25 as the light source (Lanzisera, Figures 1 and 2, column 4, line 34 and 35). However, neither combined nor individual teaching of Huang ('332 B1), Gibboney ('313 B2) and Lanzisera ('147) specifically teaches the LEDs being inverted in mounting position.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the decorative string light of Huang ('332 B1) in view of Gibboney ('313 B2) and Lanzisera ('147) by orienting the LEDs in inverted position, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art.

Regarding Claim 13, dependent on Claim 11, Huang ('332 B1) in view of Gibboney ('313 B2) and Lanzisera ('147) discloses the decorative string light meeting the limitations in similar manner as that applied for the rejections of Claim 12.

8. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US Patent No.: 6,299,332 B1) in view of Liu (US Patent No.: 6,471,562 B1) and Lanzisera (US Patent No.: 5,495,147) as applied to Claim 2 above, and further in view of Jackson et al. (US Patent No.: 6,578,981 B2).

Regarding each of claims 24 and 25, dependent on claims 2 and 9 respectively, Huang ('332 B1) in view of Liu ('562 B1) and Lanzisera ('147) discloses a decorative string light (Figure 9) comprising a plurality of socket assemblies each including an LED. However, neither combined nor individual teaching of Huang('332 B1), Liu ('562 B1) and Lanzisera ('147) discloses a string light including at least one spacer – non-illuminated bead – positioned upon the power cord between adjacent socket assemblies.

On the other hand, Jackson et al. ('981 B2) discloses a lighted bead necklace comprising spacer beads 14 – conventionally made from light reflective/ refractive material - positioned upon the power cord 15, and positioned between adjacent socket assemblies 12 (Figures 1 and 2, column 3, lines 8-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the decorative string light of Huang ('332 B1) in view of Liu ('562 B1) and Lanzisera ('147) by providing the spacer beads as taught by Jackson et al. ('981 B2) for the benefits of enhanced illumination with added attraction value.

Allowable Subject Matter

9. Claims 14-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record, including Huang ('332 B1), Gibboney ('313 B2) and Lanzisera ('147), does not show or suggest the applicant's invention as claimed.

Specifically, the prior art of record does not disclose a decorative string light combining:

- a third wire with a first and a second wires fractionally engaged on the side walls of at least one socket as recited in each of claims 14-17;
- a plurality of electrical contacts adapted to engage said LED in a series electrical connection with the third wire as recited in each of claims 14-17;
- current interrupting means interrupting current flow in the third wire during AC cycle for longer duration when the voltage is higher, and shorter duration when voltage is lower as recited in each of claims 22 and 23.

The above-indicated combination, including at least one socket including fractionally engaged first, second and third wires, is unique.

Gibboney ('313 B2) discloses a decorative string light including first, second and third wires engaged on one sidewall of a receptacle. However, the receptacle, taught by Gibboney ('313 B2), does not have first and second walls transmitting light from the light source electrically coupled to the receptacle as claimed by the applicant.

Further, neither combined nor individual teaching of Huang ('332 B1), Gibboney ('313 B2) and Lanzisera ('147) the claimed current interrupting means interrupting current, in the third wire, for the duration proportional to the voltage during the AC cycle.

Therefore, claims 14-17 are objected over prior art.

Claim 18 is necessarily objected because of their dependency on the objected base Claim 14.

Claim 19 is necessarily objected because of their dependency on the objected base Claim 15.

Claim 20 is necessarily objected because of their dependency on the objected base Claim 16.

Claim 21 is necessarily objected because of their dependency on the objected base Claim 17.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gibboney (U.S. Patent No. 6,869,313 B2), Jackson et al. (U.S. Patent No. 6,578,981 B2), Liu (U.S. Patent No. 6,471,562 B1), Huang (U.S. Patent No. 6,299,332

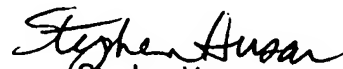
B1), Tseng (U.S. Patent No. 6,200,003 B1), Gibboney (US Patent No.: 6,157,139), Liou (US Patent No.: 5,410,460) and Sanders et al. (US Patent No.: 4,682,079)

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSS
6/20/05


Stephen Husar
Primary Examiner